

Jim Chatfield
Ohio State University Extension

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The expressiveness of a beech-tree trunk (JC)

Thoreau. This July 12 will be the bicentennial of the birth of Henry David Thoreau, a lover of trees. I was speaking to my Sustainable Landscape Maintenance class about trees the other day, and though it was not snowing, we spoke about our appointments with trees this semester. As Thoreau said:

“I frequently tramped eight or ten miles through the deepest snow to keep an appointment with a beech-tree, or a yellow birch, or an old acquaintance among the pines.”

Our class shall cover those miles and more, and I entreat each of you to cultivate your inner *flâneur*, a French word for “stroller”. Walkabout, and appreciate the nuances of nature.

Names. It is January, so it is a New Year of Trees and for that matter, all plants, and with a chance to start over, let us look at the basics. As the Chinese philosopher, Krishtalka intoned: *“The beginning of wisdom is knowing things by their right names.”*

So, before we talk this year about plant maintenance, and tomato varieties, and the secrets of the soil, let us endeavor to learn plant names: the difference between pines (*Pinus*) and spruces (*Picea*); needles in bundles of 2, 3, or 5 for pines, singly attached to the twigs for spruce. Note the italicized Latin names for pines and spruces. This brings us to Linnaeus.



Pine needles are in bundles; here a five-needled white pine (JC)



Spruce needles are singly attached to the twig (JC)

Carl von Linne, the Swedish botanist who gave himself the Latinized name of Linnaeus, in 1753 produced one of the great books of all time, *Species Plantarum*, in which he consolidated an idea that was around for a while – to systemize the names of living things (and rocks, but that is another story).

Each of these living things, each known species, was assigned a Latin binomial, a two-part name in what was then the language of science. Thus, the species for the American striped maple, *Acer pensylvanicum*, with *Acer* being the genus and *pensylvanicum* (the misspelling is eternalized) being the specific epithet, paired together providing the name of the species. Ergo, *Homo sapiens* – for – us!

This was much better than a Latin sentence or paragraph used at the time to refer to a plant or animal when scientists were corresponding with each other. This has paid off big dividends ever since. For example, as

commercial horticulture and amateur botanizing and gardening increased, communication was also greatly facilitated.

Everyone in the world now can know what is meant if we look up *Nymphaea alba*, though before Linnaeus a much longer description was needed, and today if you just want to use the common name of European water lily, well there are 245 common names just in the languages of English, French, German, and Dutch for *Nymphaea alba*.

Furthermore, this two-part naming system for species has dovetailed nicely with our understanding of the living world (not so with those rocks Linnaeus gave Latin names to). Linnaeus new next to nothing conpared to today of heredity for living organisms, and genetics was not a term of currency much less of understanding in 1753. But the idea of a biological species, an organism reproductively isolated from other species at a given point in time is fundamentally useful for our modern understanding of genetics. *Homo sapiens* does not interbreed with aardvarks, *Orycteropus afer*. And *Nymphaea alba* does not mate with European daylilies, *Hemerocallis fulva*. Plants of course do not read books, but, though there are the occasional hybrids, those plants classified as one species do not typically hybridize with plants classified as other species

Hoppy New Year. Now – for something entirely different. Earlier this week in Columbus I gave some talks at the Midwest Green Industry Xperience program put on by the Ohio Nursery Landscape and Association and ran into Kevin Rice of Rice’s, who with his brother Brian is involved with their Stark County family business (since 1941) of landscape design, garden center management and other landscaping services. What’s new with Kevin?

One of his recent passions is hops production. I remember decades ago driving through the Willamette Valley in Oregon, marveling at the variety of their horticulture: hazelnut orchards on one side of the road, hops plantations on the other. At that time hops were pretty uncommon in Ohio: now it is a big deal.

Mike Schlitz and Kevin are growing beautiful rows of hops (*Humulus lupulus*) at their Second Sons Hopyard near Hartville. Kevin and Mike now have their hops flowers flavoring offerings from eight breweries. They have worked closely with OSU hops guru, Brad Bergfurd of the Ohio Agricultural Research and Development Center on many steps of their hopdom adventure.



Mike Schlitz and the Second Sons Hopyard near Hartville (image from Kevin Rice)

Books. Finally, back to Linnaeus – with my first book recommendation for the year. Over the holidays, my daughter Sara was reading a very cool book: “The History of THE BOOK in 100 Books”, by Roderick Cave and Sara Ayeed (2014). One of the essays was “A Pioneer in Information Retrieval”, written about, of all things “Species Plantarum”. The authors wryly note that Linnaeus was not short of self-regard, as evidenced by what they liken to a Linnaean “overly confident job application”:

No one has been a greater Botanist or Zoologist. No one has written more books, more correctly, more methodically, from his own experience. No one has more completely changed a whole science and initiated a new epoch.

Pretty full of himself – but we do still talk about him. And I suspect plant-lovers from northeast Ohio to Uppsala, Sweden where he was a professor to northeast Africa – all biologists would like to have strolled with Linnaeus. Here is what writer Kennedy Warne wrote in *Smithsonian* in 2007 (the tricentennial of the birth of Linnaeus):

*“What forays they must have been! Botanizing with Linnaeus would have been the equivalent of studying geometry with Euclid, or taking a writing class from Shakespeare. In keeping with Linnaeus’ orderly disposition, the expeditions were organized with the precision of a military campaign, with designated note takers, specimen collectors, and bird shooters. A bugle would sound when rare species were found. At the end of the ramble - up to 12 hours during the Baltic summer months - the party would troop back to town, waving banners, blowing horns, and beating kettledrums. At the botanic garden a shout would go up, **Vivat Linnaeus!**”*